

Board Assembly Part Number(s)

Part Number	Description
153374F-01L or later	cDAQ-9138 RT
153374F-02L or later	cDAQ-9139 RT
153374F-11L or later	cDAQ-9138 WES7
153374F-12L or later	cDAQ-9139 WES7

Manufacturer: National Instruments

Volatile Memory

Type ¹	Size	User Accessible/ System Accessible ²	Battery Backup?	Purpose	Method of Clearing ³
DDR3-SDRAM	2 GB	Yes/Yes	No	System memory	Cycle power
RTC RAM	256 bytes	Yes/Yes	Yes	Battery-backed portion of RTC	CMOS Reset button
Controller SRAM	54 KB	Yes/Yes	No	Acquisition and Generation Data	Cycle power
Controller SRAM	49 KB	No/Yes	No	Configuration & Control	Cycle power

Non-Volatile Memory

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
System BIOS	8 MB	No/Yes	No	BIOS firmware	BIOS update utility
SPD Flash	2 MB	No/No	No	Describes DDR3 memory	None available to user
Ethernet Flash	1 MB	No/No	No	Ethernet control firmware	None available to user
Controller Flash	1 MB	No/Yes	No	Firmware	None available to user
Riser Card SSD	32 GB	Yes/Yes	No	Operating System and Storage	Format drive

¹ Calibration constants that are stored in device EEPROMs include information for the device's full operating range. Calibration constants do not maintain any unique data for specific configurations at which the device is used unless otherwise specified.

² Items are designated **No** for the following reason(s):

- a) Hardware changes or a unique software tool from National Instruments are required to modify contents of the memory listed.
- b) Hardware-modifying software tools are not distributed to customers for any personal access or customization, also known as non-normal use.

³ The designation *None Available to User* indicates that the ability to clear this memory is not available to the user under normal operation. The utilities required to clear the memory are not distributed by National Instruments to customers for normal use.



Media Storage

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
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NONE

Clearing Notes:

RTC RAM: The CMOS Reset Button is located between slots 5 and 6. See the User Manual for more information on the CMOS Reset Button.

BIOS Firmware: You may use the appropriate version of the BIOS Update Utility to restore your BIOS to its original factory version.

Terms and Definitions

User Accessible Allows the user to directly write or modify the contents of the memory during normal instrument operation.

System Accessible Does not allow the user to access or modify the memory during normal instrument operation. However, system accessible memory may be accessed or modified by background processes. This can be something that is not deliberate by the user and can be a background driver implementation, such as storing application information in RAM to increase speed of use.

Cycle Power The process of completely removing power from the device and its components. This process includes a complete shutdown of the PC and/or chassis containing the device; a reboot is not sufficient for the completion of this process.

Volatile Memory Requires power to maintain the stored information. When power is removed from this memory, its contents are lost.

Non-Volatile Retains its contents when power is removed. This type of memory typically contains calibration or chip configuration information, such as power up states.